§103 Rejection of the Claims

Claims 1, 2, 5-9. 11-15, 27, 28, 30 and 31-35 were rejected under 35 USC § 103(a) as being unpatentable over Drummond et al. The Drummond reference does not describe a dough that is storable at an unrefrigerated temperature. The Drummond doughs are all refrigerated. The Drummond doughs require refrigeration because they are yeast-leavened. Yeast leavening is not required in the doughs of the present invention. Hence, the doughs are not refrigerated.

Claims 3-4 were rejected under 35 USC § 103(a) as being unpatentable over Drummond et al. in view of LeFlecher et al. and Durst. As discussed, the Drummond reference does not describe a dough that is storable at an unrefrigerated temperature. The Drummond doughs are all refrigerated. The LeFlecher et al. reference describes a batter and does not describe a dough. Furthermore, the LeFlecher reference does not describe a product having the ratio of sugar- to-flour that is claimed. The ratio is much higher. Where is the suggestion to combine a batter and a dough? Where is the suggestion to combine the references to obtain the present invention? LeFlecher relies upon a high sugar content to retard microbial growth. Drummond requires refrigeration to retard yeast leavening. Combining the references suggests using an elevated sugar concentration and refrigeration, contrary to what is claimed. The Durst patent describes formulations that have a sugar:flour ratio that is outside of the range claimed. Thus, combining references does not yield the claimed invention. Rather, combining references yields a product having a sugar:flour ratio of 1:1 or greater and a product that requires refrigeration.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6976) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 17th day of January, 2003.

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CLEAN VERSION OF PENDING CLAIMS

INERT-GAS BASED LEAVENED DOUGH SYSTEM
Applicant: Venkatachalam Narayanaswamy et al.
Serial No.: 09/707,184

1. (Amended) A ready-to-use dough article, comprising:
a substantially gas-impermeable container;
a dough disposed within the container, comprising:
flour and sugar wherein the ratio of sugar to flour is in a range of about 0.0 to 0.75 to 1,
wherein the dough is storable without refrigeration.

2. The dough article of claim 1 further comprising an inert gas containing less than 4% residual oxygen disposed within the container and within the dough.

3. The dough article of claim 1 wherein the dough comprises an encapsulated leavening ingredient.

4. The dough article of claim 1 wherein the dough further comprises a polyol.

5. The dough article of claim 2 wherein the inert gas is nitrous oxide or nitrogen or carbon dioxide or mixtures of these gases.

6. The dough article of claim 2 wherein the inert gas is a mixture of carbon dioxide and nitrous oxide.

7. (Amended) The dough article of claim 1 wherein the dough is free of sugar.

8. The dough article of claim 2 wherein the gas-impermeable container comprises a pouch.

9. The dough articles of claim 2 wherein the gas-impermeable container comprises a baking pan.

11. The dough article of claim 1 wherein the dough is a biscuit dough.

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12. The dough article of claim 1 wherein the dough is a roll dough.

13. The dough article of claim 1 wherein the dough is a scone dough.

14. The dough article of claim 1, further comprising fat wherein the fat does not exceed about 25% of the dough by weight.

15. The dough article of claim 1 wherein the density of the dough ranges from 0.7 to 1.1 g/cc.

27. (Amended) A ready-to-use dough article, comprising:

a substantially gas-impermeable container;

dough disposed within the container, wherein the dough is storable without refrigeration, comprising:

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flour and sugar wherein the ratio of sugar to flour is in a range of about 0.0 to 0.75 to 1, and an encapsulated leavening ingredient; and

an inert gas disposed within the container containing less than about 4% residual oxygen.

28. The dough article of claim 27 wherein the inert gas is nitrous oxide or nitrogen or carbon dioxide or mixtures of these gases.

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30. The dough article of claim 27 wherein the dough is pizza dough, biscuit dough or English muffins.

31. (Amended) A ready-to-use expanded dough article, comprising an elastic gluten based dough having a cellular network structure and a substantially gas-impermeable container within which the dough is sealed, made by a method comprising:

preparing a dry blend comprising flour and sugar wherein the ratio of sugar to flour is in a range of about 0.0 to 0.75 to 1,

preparing a wet blend;

mixing the wet blend and dry blend;

expanding the dough by injecting, mixing or blending an inert gas into the dough to form an expanded dough comprising a cellular structure;

transferring the expanded dough to the container; and sealing the container, and storing the dough sealed in the container without refrigeration.

32. The expanded dough article of claim 31 in which the inert gas is selected from the group consisting of N_2O, N_2, CO_2 and mixtures thereof.

33. The expanded dough article of claim 31 in which the dough formed by mixing the dry blend and the wet blend further comprises an encapsulated leavening agent.

34. The expanded dough article of claim 31 in which mixing the dough and expanding the dough are done concurrently.

35. The expanded dough article of claim 32 further comprising sealing the container so as to form a headspace with the headspace having an oxygen concentration that is not more than 4% by volume.